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# Wisconsin Legislative Council

## STAFF BRIEF

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### STUDY COMMITTEE ON SANDHILL CRANES

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The Wisconsin Legislative Council is a nonpartisan legislative service agency. Among other services provided to the Wisconsin Legislature, staff of the Wisconsin Legislative Council conduct study committees under the direction of the Joint Legislative Council.

Established in 1947, the Joint Legislative Council directs study committees to study and recommend legislation regarding major policy questions facing the state. Study committee members are selected by the Joint Legislative Council and include both legislators and citizen members who are knowledgeable about a study committee's topic.

This staff brief was prepared by the Wisconsin Legislative Council staff as an introduction for study committee members to the study committee's topic.

# INTRODUCTION

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Sandhill cranes (*Antigone canadensis*) are the most abundant species of crane worldwide and inhabit a vast range across North America and parts of northeast Asia. Throughout this range, these large, vocal birds are widely appreciated as a charismatic species and, in some areas, as a game species. However, sandhill cranes also present challenges to farmers when they damage various crops. These factors, coupled with the growth of crane populations in recent decades, drive ongoing interest in the effective management of the species.

The hunting of sandhill cranes is regulated by state law and by federal law, which implements international treaties that protect migratory birds. The federal government may authorize a state to implement sandhill crane hunting, but such hunting is not currently authorized in Wisconsin. Similarly, although state law authorizes the Department of Natural Resources (DNR) to establish open seasons for wild animals and birds, no open season is currently established for sandhill cranes. Legislation to require a sandhill crane open season was introduced in the 2021-22 legislative session, but it was not enacted.

Various nonlethal practices are employed to prevent or minimize agricultural crop damage by sandhill cranes. In addition to practices that try to frighten cranes away from crops, a chemical coating that makes a crop unpalatable to cranes is also in use.

The Study Committee on Sandhill Cranes is directed to review and recommend options for legislation relating to the management of Wisconsin's sandhill crane population. The committee shall examine population trends and determine whether any changes to state law would effectively address the incidence and consequences of crop damage caused by sandhill cranes in this state. As part of a comprehensive review of policy options, the committee may consider whether DNR should seek federal approval to establish a hunting season for sandhill cranes. The committee shall recommend legislation to manage the population of sandhill cranes and address the agricultural impact of sandhill cranes.

This staff brief provides background information to assist the study committee as it carries out its charge. More specifically, the staff brief includes the following parts:

- **Part I** provides an overview of migratory sandhill crane populations and recent population trends.
- **Part II** describes the management of sandhill crane populations and laws relating to sandhill crane hunting.
- **Part III** discusses crane-related crop damage and prevention methods, including depredation permits. Part III also describes the state's damage abatement and claims assistance program, though this program does not provide support for crane-related damage.

## PART I | SANDHILL CRANE POPULATIONS

Sandhill cranes are generally managed in terms of six specific populations: Pacific Coast, Central Valley, Lower Colorado River Valley, Rocky Mountain, Mid-Continent (MCP), and Eastern (EP).<sup>1</sup> These populations share broadly similar migratory patterns, breeding and nesting in northern regions and wintering in southern regions. However, each population inhabits and migrates across a unique geographic region, as illustrated in Figure 1.

Additionally, the populations vary dramatically in their abundance, contributing to differing management strategies.

Various entities, including the U.S. Fish and Wildlife Service (USFWS), state wildlife management agencies, and nongovernmental conservation organizations, carry out surveys to assess sandhill crane populations. Population estimates from these surveys can vary, due to factors such as the timing of migration in a given year and the extent of a particular survey effort. Nevertheless, assessments provide valuable insights that guide the management of sandhill crane populations.

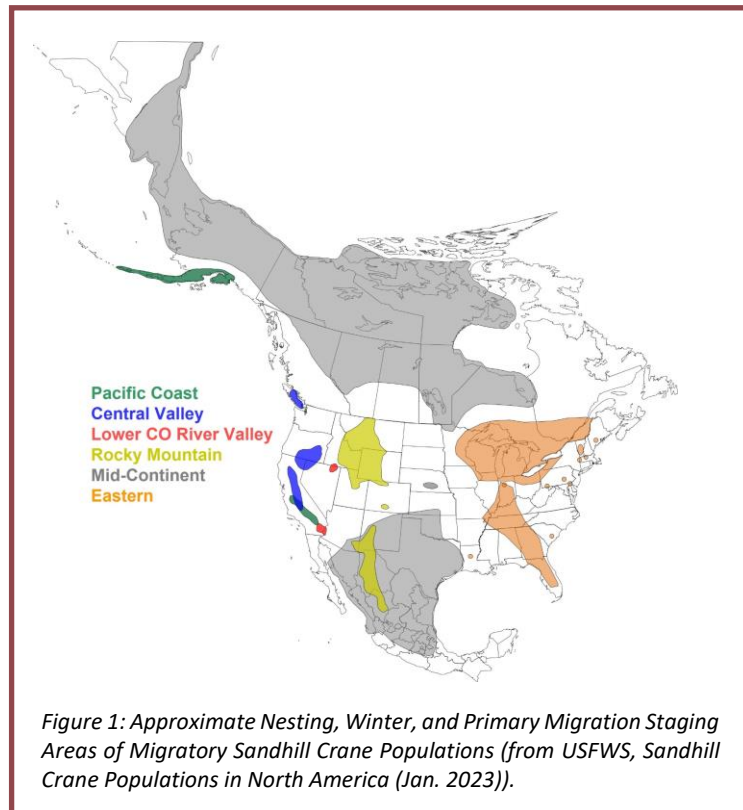


Table 1 outlines population and U.S. harvest estimates for the six migratory populations of sandhill cranes. Notably, the MCP is by far the most abundant, comprising approximately 88 percent of the global population of sandhill cranes. This is also reflected in the harvest of sandhill cranes, with the vast majority of hunting concentrated upon the MCP. Comparably speaking, sandhill crane hunting is relatively limited with respect to the EP and Rocky Mountain populations. The Lower Colorado River Valley and Central Valley populations are not currently hunted, and the Pacific Coast sandhill cranes are subject to limited, subsistence hunting.

<sup>1</sup> While management often focuses on migratory populations, efforts may also consider the various subspecies of sandhill crane. Migratory sandhill crane populations consist of the greater and lesser subspecies (a third migratory subspecies, Canadian, is sometimes recognized). Three nonmigratory subspecies are also recognized (Mississippi, Florida, and Cuba sandhill crane). However, these nonmigratory populations are very limited in number and in range. Notably, the Cuba and Mississippi subspecies are currently designated as endangered under the federal Endangered Species Act.

**Table 1: Migratory sandhill crane abundance, harvest, and population trends**

Migratory Population	Abundance Estimate*	Approximate 2022-23 U.S. Harvest†	Population Trend*
<b>Pacific Coast</b>	36,100	N/A	Increasing
<b>Central Valley</b>	8,600	N/A	Stable
<b>Lower Colorado River Valley</b>	5,900	N/A	Stable/Slightly Increasing
<b>Rocky Mountain</b>	25,600	1,600	Stable/Slightly Increasing
<b>Mid-Continent</b>	1,270,000	56,000	Increasing
<b>Eastern</b>	97,800	1,100	Increasing

\* Population estimates and trends are derived from Andrew J. Caven, *An Updated Minimum Estimate of the Global Sandhill Crane Population*, Platte River Natural Resource Reports Forthcoming (Mar. 2023), <http://dx.doi.org/10.2139/ssrn.4373522>.

† Harvest estimates from Mark E. Seamans, *Status and Harvests of Sandhill Cranes 2023: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations*, USFWS (Aug. 2023), <https://www.fws.gov/sites/default/files/documents/status-and-harvest-of-sandhill-cranes-2023.pdf>.

## Sandhill Cranes in Wisconsin

Wisconsin's sandhill cranes belong to the EP, the second most abundant migratory population. In the spring and summer, EP sandhill cranes breed and nest across the Great Lakes region, primarily in Wisconsin, Michigan, and Ontario. In the fall, EP sandhill cranes begin migrating to their wintering grounds, at times congregating in large flocks at staging areas along their migratory path.<sup>2</sup> While the wintering range of the EP sandhill crane was historically confined to southeastern Georgia and Florida, this range has since expanded to include portions of Tennessee (TN), Kentucky (KY), and Indiana.<sup>3, 4</sup>

Though EP sandhill crane populations were widely extirpated in the late 1800's and early 1900's, the population has rebounded considerably in modern times.<sup>5, 6</sup> Notably, annual surveys conducted by USFWS have documented long-term increases in the EP sandhill crane population. From 1979 to 2009, the population's growth rate averaged 3.9 percent annually, a pattern that has continued, and even accelerated, in subsequent years.<sup>7</sup> Most recently, USFWS's

<sup>2</sup> Major staging areas for EP sandhill cranes include the Jasper-Pulaski National Wildlife Refuge in Indiana and the Hiwassee Wildlife Refuge in Tennessee.

<sup>3</sup> T.C. Tacha, et al., *Sandhill crane*, pages 77-94 in *Migratory Shore and Upland Game Bird Management in North America*. International Association of Fish and Wildlife Agencies (1994).

<sup>4</sup> F.E. Fronczak, et al., *Distribution and Migration Chronology of Eastern Population Sandhill Cranes*, *Journal of Wildlife Management* (Apr. 2017).

<sup>5</sup> F.S. Henika, *Sandhill Cranes in Wisconsin and Other Lake States*. Proceedings of the North American Wildlife Conference (1936).

<sup>6</sup> L.H. Walkinshaw, *The Sandhill Cranes*. Cranbrook Institute of Science Bulletin 29:1-202 (1949).

<sup>7</sup> C. L. Amundson and D.H. Johnson, *Assessment of the Eastern Population Greater Sandhill Cranes (*Grus canadensis tabida*) Fall Migration Survey, 1979-2009*. Report to USFWS, Migratory Bird Management, Region 3 (2010).

2022 survey of EP sandhill cranes reported a 19 percent increase relative to the prior year.<sup>8</sup> While various factors may eventually constrain the growth of sandhill crane populations, these recent trends nevertheless drive an increased interest in management of the species.

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<sup>8</sup> Rachael Pierce and Dave Fronczak, *Fall Survey of the Eastern Population of Greater Sandhill Cranes 2022 Final Report*, USFWS (Dec. 2022), [https://www.fws.gov/sites/default/files/documents/fall-survey-eastern-population-greater-sandhill-cranes-2022\\_o.pdf](https://www.fws.gov/sites/default/files/documents/fall-survey-eastern-population-greater-sandhill-cranes-2022_o.pdf).

## PART II | SANDHILL CRANE MANAGEMENT AND HUNTING

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### MANAGEMENT IN GENERAL

#### Overview

Sandhill crane populations are managed through cooperation between USFWS and state wildlife agencies. This is accomplished, in part, through plans developed by one or more Flyway Councils. In sum, federal law implements international treaties that generally prohibit the hunting of migratory birds, including sandhill cranes. However, the federal government may consult the management plan of a Flyway Council in authorizing a state to implement a sandhill crane harvest, which a state may then do in accordance with federal parameters.

#### Federal Law

The federal Migratory Bird Treaty Act (MBTA), first enacted in 1918, generally makes it unlawful to pursue, hunt, take, capture, or kill any migratory bird. This restriction applies also to any part, nest, or egg of a migratory bird.<sup>9</sup> The MBTA implements four bilateral treaties that protect over 1,000 bird species, including the sandhill crane, that migrate between the United States and four other nations (Canada, Japan, Mexico, and Russia).<sup>10</sup>

Although the MBTA establishes broad protections for migratory birds, the act provides that the U.S. Secretary of the Interior may promulgate regulations enabling the hunting, taking, capturing, or killing of a migratory bird that is otherwise protected. These regulations determine when, to what extent, and by what means the activities impacting migratory birds may occur. The regulations must also give due regard to a number of factors, including the distribution, abundance, economic value, and migration patterns of various species.

#### Role of Flyway Councils

Flyway Councils are administrative bodies reflecting each of North America's four major migratory bird flyways (Pacific, Central, Mississippi, and Atlantic). The membership of these councils consists of representatives from wildlife management agencies of the states, provinces, and territories within each flyway. Wisconsin participates in the Mississippi Flyway Council, along with Minnesota, Iowa, Missouri, Arkansas, Louisiana, Illinois, Michigan, Indiana, Ohio, KY, TN, Alabama (AL), Mississippi, and three Canadian provinces.

The Flyway Councils develop management plans to establish shared goals and principles for species management within the flyway. These plans may also serve as recommendations to national bodies, such as USFWS.<sup>11</sup>

#### Federal Regulations

After consideration of the recommendations of a Flyway Council, the director of USFWS establishes annual seasons and limits for a species. The director promulgates general

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<sup>9</sup> 16 U.S.C. s. 703 (a). The following actions with regard to a migratory bird, part, nest, or egg are also unlawful under the act: to possess; offer for sale; sell; offer to barter; barter; offer to purchase; purchase; deliver for shipment; ship; export; import; deliver for transportation; transport; or carry.

<sup>10</sup> See definition of "migratory game birds" in 50 C.F.R. s. 20.11 (a). See list of birds in 50 C.F.R. s. 10.13.

<sup>11</sup> Further information on the Flyway Councils is available at USFWS, *Migratory Bird Program Administrative Flyways*, <https://www.fws.gov/partner/migratory-bird-program-administrative-flyways>.

regulations that manage the hunting of all migratory birds, and annually promulgates specific regulations establishing limits and seasons for certain migratory bird species.

## General Regulations

If the taking of a migratory bird is allowed, it may be taken by any method except those prohibited by the director.<sup>12</sup> The director may close or temporarily suspend any open season upon a finding that a continuation of the season would constitute an imminent threat to the safety of any endangered or threatened species, or other migratory bird population.<sup>13</sup>

## Annual Regulations

### Overview

The director first promulgates a framework for migratory bird hunting that establishes the outside dates, season lengths, shooting hours, bag and possession limits, and hunting areas. The states that are authorized to conduct an open season select hunting opportunities within these limits. The director then promulgates a regulation implementing those selections.<sup>14</sup>

An open season may not exceed 107 days, and the earliest and latest dates allowed for hunting of migratory birds are set by the treaties: September 1 and March 10.<sup>15</sup>

Within those parameters, states have been allowed to divide their total hunting days for some species and groups of birds into nonconsecutive segments in order to take advantage of species-specific peaks of abundance. States may also be able to establish separate seasons for different geographic areas of the state.<sup>16</sup>

## 2023-24 Sandhill Crane Season Framework

The 2023-24 migratory bird season framework was published in August 2023.<sup>17</sup> The sandhill crane framework for the Mississippi Flyway<sup>18</sup> includes the following elements:

- Areas: AL, KY, and TN.
- Outside dates: September 1 to January 31.<sup>19</sup>

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<sup>12</sup> Prohibited methods include the following: use of a trap or snare; by a rifle, a pistol, or a shotgun larger than 10 gauge or capable of holding more than three shells; with poison or explosives; or from or aided by a motor vehicle or aircraft. It is also prohibited to use live birds as decoys and generally prohibited to use recorded or electrically amplified bird calls. Finally, it is generally prohibited to take a migratory bird by the aid of baiting, or on or over any baited area. However, that prohibition does not apply to, among other practices, taking a crane on or over standing crops, flooded harvested croplands, or areas where seeds or grains have been scattered solely as the result of normal agricultural practices. [50 C.F.R. s. 20.21.]

<sup>13</sup> 50 C.F.R. s. 20.26 (a) (1).

<sup>14</sup> See 88 Fed. Reg. 154 (2023) at p. 54830.

<sup>15</sup> 16 U.S.C. s. 704 (c) (2) (B) (ii). See, also, <https://www.fws.gov/law/migratory-bird-hunting-regulations>.

<sup>16</sup> See <https://www.fws.gov/law/migratory-bird-hunting-regulations>.

<sup>17</sup> *Migratory Bird Hunting: Final 2023-2024 Frameworks for Migratory Bird Hunting Regulations*, 88 Fed. Reg. 154 (2023), pp. 54830-53863. The final 2023-24 season regulations were published in mid-August 2023. See *Migratory Bird Hunting: 2023-2024 Seasons for Certain Migratory Game Birds*, 88 Fed. Reg., 159 (2023), pp. 56489-56521.

<sup>18</sup> Although the framework includes northwest Minnesota because that state is located geographically within the Mississippi Flyway, the sandhill cranes in the Minnesota hunting zone belong to the MCP. Therefore, information regarding sandhill crane hunting in Minnesota is not addressed in this staff brief.

<sup>19</sup> For comparison, the outside dates are: September 1 to February 28 in Colorado, Kansas, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming in the Central Flyway, and September



- Maximum season length: 60 days.
- Seasonal bag limit: three.
- Permits: required.
- In addition, the number of permits, open areas, season dates, protection plans for other species, and other provisions of seasons must be consistent with management plans and approved by the Mississippi Flyway Council.

## Federal Penalties

A violation of the MBTA or USFWS regulations is a misdemeanor punishable by a fine not to exceed \$15,000, imprisonment not to exceed six months, or both.<sup>20</sup>

## AUTHORIZING HARVEST WITHIN A STATE

As permitted by the MBTA, states may make and enforce regulations that are not inconsistent with it or with the treaties implemented by it. State regulations may also provide further protection of migratory birds.<sup>21</sup>

With regard to the EP sandhill crane, an ad hoc committee was created around 2004 jointly by the Mississippi and Atlantic Flyway Councils to develop a structure to allow jurisdictions within those flyways to inaugurate sandhill crane harvests.<sup>22</sup> The ad hoc committee produced a management plan. Each of the relevant Flyway Councils approved the plan in 2010.

Under the management plan, a jurisdiction must submit a harvest request to the appropriate Flyway Council by July of the year before initiation of the potential harvest season. A hunting season request must include the following seven elements:

1. An estimate of the peak number of sandhill cranes and the timing of migration in that jurisdiction over at least a five-year period, including when the population reaches its highest levels during the potential hunting period (September 1 to January 31).
2. Proposed season dates, season length, and any hunting zones within the jurisdiction.
3. Proposed jurisdiction permit system to allocate hunting permits.
4. Method of data collection on harvest and hunter participation.
5. Proposed number of permits, not to exceed 10 percent of the peak number of sandhill cranes observed in that jurisdiction in the previous five years. If a jurisdiction does not have an existing survey, it may need to initiate one.
6. The total of all state-level requests cannot exceed the maximum number of permits allowed for the EP. If requests exceed the maximum, permits will be allocated to the states in proportion to the estimated crane population in each state among all states requesting permits.

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1 to January 31 in Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming within the range of the Rocky Mountain Population in the Central and Pacific Flyways. [88 Fed. Reg. 154, (2023), at p. 54845.]

<sup>20</sup> 16 U.S.C. s. 707 (b) (1). Knowingly taking a migratory bird with intent to sell or barter such bird is a felony punishable by a fine not to exceed \$2,000 or imprisonment not to exceed two years, or both.

<sup>21</sup> 16 U.S.C. s. 708.

<sup>22</sup> An employee of DNR represented the State of Wisconsin on the ad hoc committee.

7. Educational tools and communications that will help hunters understand sandhill crane hunting and how to avoid harvest of nontarget species, particularly whooping cranes.<sup>23</sup>

Any new season that is approved under this process is considered experimental for three seasons.<sup>24</sup>

## HUNTING IN OTHER EP JURISDICTIONS

### States

Pursuant to the guidelines in the 2010 management plan, described above, KY, TN, and AL initiated experimental hunting seasons in 2011, 2013, and 2023, respectively. In each case, regular seasons commenced four years later.<sup>25</sup>

During the 2022-23 hunting season, the total number of EP sandhill cranes harvested was 1,085 birds, as follows:

- KY: 180 cranes were harvested on 1,148 issued tags.
- TN: 640 cranes were harvested on 2,500 issued tags.
- AL: 265 cranes were harvested on 1,200 issued tags.<sup>26</sup>

Historical data on the harvest in these jurisdictions is provided in Table 2.

**Table 2: Estimated harvest and number of permits sold for EP sandhill cranes**

Year	KY Harvest	KY Tags Issued †	TN Harvest	TN Tags Issued †	AL Harvest	AL Tags Issued †	Total Harvest	Total Permits Issued
2011	50	534	No Season	No Season	No Season	No Season	50	534
2012	92	570	No Season	No Season	No Season	No Season	92	570
2013	87	570	350	1,200	No Season	No Season	437	1,770
2014	96	704	393	1,200	No Season	No Season	489	1,904
2015	75	694	161	1,200	No Season	No Season	236	1,894
2016	171	672	586	1,200	No Season	No Season	757	1,872
2017	119	660	830	2,319	No Season	No Season	949	2,979
2018	60	1,432	555	2,711	No Season	No Season	615	4,143
2019	96	1,237	746	2,958	291	1,200	1,133	5,395

<sup>23</sup> Whooping cranes are the other species of crane present in North America, and they share some physical similarities with sandhill cranes. Whooping cranes are protected as an endangered species, both federally and at the state level.

<sup>24</sup> See Ad Hoc Eastern Population Sandhill Crane Committee, [Management Plan for the Eastern Population of Sandhill Cranes](#), prepared for the Atlantic and Mississippi Flyway Councils (March 23, 2010).

<sup>25</sup> 88 Fed. Reg. 154 (2023), at p. 54836.

<sup>26</sup> See Mark E. Seamans, *Status and Harvests of Sandhill Cranes 2023: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations*, USFWS (Aug. 2023), <https://www.fws.gov/sites/default/files/documents/status-and-harvest-of-sandhill-cranes-2023.pdf>.

**Table 2: Estimated harvest and number of permits sold for EP sandhill cranes**

Year	KY Harvest	KY Tags Issued †	TN Harvest	TN Tags Issued †	AL Harvest	AL Tags Issued †	Total Harvest	Total Permits Issued
2020	65	1,035	630	2,700	391	1,200	1,086	4,935
2021	117	1,029	484	2,500	234	1,200	835	4,729
2022	180	1,148	640	2,500	265	1,200	1,085	4,848
<b>Average</b>	101	857	538	1,999	295	1,200	607	2,793

\* Table adapted from Mark E. Seamans, *Status and Harvests of Sandhill Cranes 2023: Mid-continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations*, USFWS (Aug. 2023), <https://www.fws.gov/sites/default/files/documents/status-and-harvest-of-sandhill-cranes-2023.pdf>.

† Each tag allows a hunter to take one crane.

## Canadian Provinces

There currently is no open season for EP cranes in Canada. A proposal to establish such a season in Quebec and Ontario is under consideration, based on an evaluation by the Canadian government that sandhill cranes could be hunted sustainably in those provinces. Under the proposal, the earliest possible implementation date for the season would be September 2026.

Using the 2010 management plan, described above, as a guide, the Canadian government is considering using a harvest framework designed to achieve an allocated annual harvest of 500 to 1,000 cranes in Quebec, based on a peak fall staging population of 18,000 birds, and 500 to 1,000 cranes in Ontario, based on a peak fall staging population of 14,000 birds. Each level of harvest represents between 0.5 percent and one percent of the entire estimated EP.

The harvest framework currently proposed is as follows:

- Hunting would be limited to specified hunting districts and restricted to farmland.
- The hunting season would last 14 days and occur in September.
- The daily bag limit would be one crane.
- Harvest would be restricted to Canadian residents.

According to this framework, proposed locations and dates for hunting were chosen based on a high abundance of cranes in agricultural areas during fall migration and to avoid disproportionately impacting breeding cranes.

Each province would monitor the harvest for the first four years (2026 to 2029). Hunting could be cancelled if the harvest is deemed detrimental to a sustainable crane population.<sup>27</sup>

<sup>27</sup> See Canadian Wildlife Service, Waterfowl Technical Committee, *Proposals to amend the Canadian Migratory Birds Regulations-2024: consultation document, hunting seasons 2024-2025 and 2025-2026*, CWS Migratory Birds Regulatory Report, Number 59, <https://www.canada.ca/en/environment-climate-change/services/migratory-game-bird-hunting/consultation-process-regulations/report-series/proposals-amend-document-2024.html#toc12>.

# WISCONSIN LAW ON SANDHILL CRANE HUNTING

## In General

Under state law, DNR has the authority to establish open seasons for “game” and set any limits and conditions that might be necessary to conserve the game supply and ensure continued opportunities for good hunting.<sup>28</sup> “Game” is defined as “all varieties of wild mammals or birds.”<sup>29</sup>

Because sandhill cranes are wild birds, they likely constitute “game” for purposes of DNR’s authority to establish an open season. Although a court has not affirmed that interpretation with regard to cranes, the Wisconsin Supreme Court ruled that DNR had express authority to institute an open season for mourning doves using that same rationale.<sup>30</sup> Given that DNR has not established an open season for sandhill cranes, such hunting is not permitted as a matter of state law.

## Penalties

DNR may bring a civil action to recover damages against any person killing, wounding, catching, taking, trapping, or possessing a protected bird in violation of state law. The amount of damages with regard to a sandhill crane is not less than \$262.50. In addition, the court may impose a wild animal protection surcharge in that same amount.<sup>31</sup>

## Prior Wisconsin Legislation on Hunting

Legislation to authorize a sandhill crane hunting season under state law was introduced in each of the 2011 and 2021 legislative sessions.

The bill introduced in the 2021 session, 2021 Senate Bill 620, received a hearing and was reported favorably from a Senate committee on a vote of Ayes, 3; Noes, 2. It was not considered by the full Senate. A companion bill was introduced in the Assembly, 2021 Assembly Bill 667, but it did not receive a hearing.

The bill introduced in the 2011 session, 2011 Assembly Bill 613, did not receive a hearing.

## 2021 Legislation

The legislation introduced in the 2021 session had the following features:

- Directed DNR to authorize sandhill crane hunting within a single season.
- Authorized DNR to issue hunting permits, if needed for proper game management.
- Authorized DNR to establish closed zones.
- Authorized DNR to issue permits at random or establish a cumulative preference system, if DNR chose to require permits and if the number of permit applications exceeded the permit allotment.
- Limited a person to one permit per season.

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<sup>28</sup> s. 29.014 (1), Stats.

<sup>29</sup> s. 29.001 (33), Stats.

<sup>30</sup> *Wisconsin Citizens Concerned for Cranes & Doves v. DNR*, [2004 WI 40](#).

<sup>31</sup> ss. 29.977 (1) (b) and 29.983 (1) (b) 2. Stats.

- Directed DNR to conduct a free sandhill crane hunter education program including all of the following:
  - History and recovery of the sandhill crane in Wisconsin and the Eastern United States.
  - Methods to distinguish sandhill cranes from other birds.
  - Methods used to estimate the population of sandhill cranes in Wisconsin.
  - Areas covered by sandhill crane hunting zones.
  - Any DNR rules regarding sandhill crane hunting.
- Required a person to complete the education program, or an equivalent one in another jurisdiction, in order to obtain a permit.
- Sunset the education program and the education program requirement after two years.
- Dedicated a portion of the funds raised from permit applications to developing, managing, preserving, restoring, and maintaining the sandhill crane population, and for the hunter education program.
- Dedicated a portion of the funds raised from permit applications to the wildlife damage abatement and claims program.

## **2011 Legislation**

The bill introduced in the 2011 session was nearly identical to the 2021 bills. However, the hunter education program established by that bill did not sunset.

## PART IV | CROP DAMAGE AND PREVENTION

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The growth of sandhill crane populations has amplified concerns regarding crane-related crop damage. While cranes can impact a variety of crops in Wisconsin, damage to corn is the most commonly reported. This damage largely occurs in the spring, when sandhill cranes gather on germinating cornfields and feed on newly planted seeds. Damage can be severe, at times requiring a grower to replant an entire field to replace lost crops.<sup>32, 33</sup>

While the cumulative value of sandhill crane damage in Wisconsin is unknown, damage complaints filed with the Wildlife Services program, administered by the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (USDA-WS), offer some insights. In 2023, USDA-WS received 200 complaints regarding crane damage to field crops in Wisconsin, with self-reported damages totaling \$1,811,400.<sup>34</sup>

### NONLETHAL PRACTICES

Farmers may deploy a variety of nonlethal methods to prevent, minimize, or disperse crop damage from sandhill cranes. These methods vary in their cost and effectiveness. In general, the following are examples of nonlethal management practices according to USDA:

- Supplemental feeding and lure crops. These practices aim to prevent migrating and wintering cranes from damaging fall or winter-seeded fields and standing cornfields. These practices are expensive, but costs have been offset in some locations by increased crane-viewing tourism. Although these practices may initially reduce foraging in the target areas by luring cranes elsewhere, they could result in an increase in cranes and thus more damage.
- Frightening devices. This is the most common nonlethal management practice. These devices may merely disperse cranes to other locations rather than eliminate damage altogether. Frightening devices fall into the following categories:
  - Auditory: Auditory frightening devices include propane cannons and pyrotechnics. These devices work best when a crane first encounters them, but a crane may build a tolerance. The devices tend to work best at staging areas where cranes do not linger long.
  - Visual: Reflective streamers attached to fences have been used to deter cranes from settling in smaller fields. These devices can be costly and time-consuming.
  - Biological: Guard dogs have been used, but are labor intensive.
- Repellents. Anthraquinone (AQ; commonly referred to under the commercial name Avipel®) has been used to deter crane predation on corn seeds. It is a chemical applied to seed in either liquid form at the distribution stage, or in powder form at the planting stage. It is believed that cranes can detect AQ by taste, sight, and smell, but it does not necessarily prevent cranes from gathering in crop fields. AQ has been studied for more than 20 years and is believed to be nontoxic to cranes. According to USDA, "One multi-year study

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<sup>32</sup> Charles D. Lovell, *Sandhill Crane: Ecology & Damage Management*, University of Wisconsin Extension, Wisconsin DNR, and USDA-WS (2012), <https://wildlifedamage.cals.wisc.edu/wp-content/uploads/sites/289/2020/10/SandhillCrane.pdf>.

<sup>33</sup> Jeb Barzen and Ken Ballinger, *Sandhill and Whooping Cranes*. USDA Wildlife Services (Jan. 2017), <https://www.aphis.usda.gov/sites/default/files/Cranes-WDM-Technical-Series.pdf>.

<sup>34</sup> Daniel Hirchert, USDA-WS, personal communication. As noted, the cost of damage described in complaints is self-reported by farmers. The costs are not independently verified by USDA-WS.

involving marked cranes over a 16,000-acre area in Wisconsin showed no difference between crane mortality or productivity rates in AQ-treated versus untreated areas.”

- Trapping. Trapping on a large scale is not practical due to the large size of most flocks, but it might be used to remove individual cranes. Additionally, because capturing migratory birds is restricted under the MBTA, trapping of cranes would generally require a person to obtain a federal permit, as described below.<sup>35</sup>

## DEPREDATION PERMITS

Under certain conditions, a farmer may obtain a Federal Migratory Bird Depredation Permit that authorizes the killing or trapping of sandhill cranes. Depredation permits specify the species, methods, and number of birds that may be taken and are only valid for the individuals, locations, and dates described on the permit. The permits are intended to provide short-term relief from damage until long-term, nonlethal methods are effective at eliminating or significantly reducing the problem.

USFWS is responsible for issuing depredation permits. However, the process for obtaining a permit begins with an individual contacting USDA-WS, which provides technical assistance to farmers dealing with wildlife-related crop damage. USDA-WS is responsible for evaluating the damage caused to a farmer’s crops and must confirm that nonlethal methods have failed to address the issues faced by a farm. If lethal take of cranes is warranted, USDA-WS issues a form (“Form 37”) to the individual seeking a permit. The individual then forwards this form, as well as other permit forms and an application fee, to USFWS to obtain a depredation permit.<sup>36, 37</sup>

Though depredation permits for sandhill cranes are issued by USFWS, the permits may also be subject to DNR review. Although DNR rules generally provide that a person does not require a written approval from DNR to destroy birds under a federal depredation permit, the rules also provide that a federal depredation permit must be reviewed and approved by DNR, and that removal activities must be in compliance with the DNR’s restrictions, requirements, and conditions.<sup>38</sup> In practice, USDA and DNR have established a relationship under which DNR will concur with the issuance of a depredation permit if it includes certain stipulations. For example, while federal depredation permits may allow for taking cranes throughout the year, DNR may stipulate that lethal take must be limited to certain windows of time.<sup>39</sup>

## WILDLIFE DAMAGE ABATEMENT AND CLAIMS ASSISTANCE PROGRAM

Wisconsin’s Wildlife Damage Abatement and Claims Assistance Program (WDACP) provides financial assistance for wildlife damage abatement measures and makes payments to farmers for claims regarding damage to agricultural crops. However, the program does not currently

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<sup>35</sup> Jeb Barzen and Ken Ballinger, *Sandhill and Whooping Cranes*, USDA-WS (Jan. 2017), <https://www.aphis.usda.gov/sites/default/files/Cranes-WDM-Technical-Series.pdf>.

<sup>36</sup> USDA-WS, *Migratory Bird Depredation Permit Process*. (Jan. 2024), <https://www.aphis.usda.gov/operational-wildlife-activities/migratory-bird-depredation-permit-process>.

<sup>37</sup> USFWS, *Frequently Asked Questions About a Federal Depredation Permit* (June 2018), <https://www.fws.gov/sites/default/files/documents/3-200-13FAQ.pdf>.

<sup>38</sup> s. NR 12.10 (1) (b) (7.), Wis. Adm. Code.

<sup>39</sup> Relatedly, the Indiana Department of Natural Resources created a [wildlife complaint form](#) for its residents to report conflict with key species, including sandhill cranes. The form is not an application for a depredation permit, but does allow the state to track wildlife conflicts.



address damage caused by sandhill cranes.<sup>40</sup> Rather, current state law provides that sandhill crane-related damage would qualify for the program if DNR authorizes the hunting of sandhill cranes.<sup>41</sup>

Under current law, WDACP is administered by counties, with oversight and technical assistance provided by DNR. County participation in the program is voluntary, though farmer eligibility for abatement and claims assistance is contingent upon their county's participation. Of Wisconsin's 72 counties, 69 participate in the program.<sup>42</sup> In many instances, counties fulfill their administrative duties through agreements with USDA-WS, under which USDA-WS administers the program on a county's behalf.

In addition to county participation in the program, eligibility for abatement or damage assistance generally requires a recipient to open their land to hunting of the type of wild animals causing the wildlife damage for which assistance is received. To satisfy this requirement, land subject to assistance, as well as contiguous land under the same ownership, lease, or control, must be open to hunting during the appropriate open hunting season. The statutes establish certain limited exceptions to the requirement to open land to hunting.

The state funding for WDACP is derived from the \$2 wildlife damage surcharge associated with most resident and nonresident hunting licenses, as well as the sale of bonus antlerless deer harvest authorizations.<sup>43</sup> In fiscal year 2022-23, the surcharge raised \$2,038,000 and bonus harvest authorizations provided an additional \$1,218,900 for wildlife damage programs (totaling \$3,256,900).<sup>44</sup> Of this revenue, \$2,726,000 supported WDACP, with the remaining revenue supporting other, smaller programs generally related to wildlife control.<sup>45</sup>

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<sup>40</sup> Though Wisconsin law does not currently provide payments for damage claims relating to sandhill cranes, this has not always been the case. In 1975, a state program providing payments for agricultural damage relating to certain birds was expanded to address sandhill cranes (see [Ch. 8, Laws of 1975](#)). Eligibility for this program sunset in 1980, through changes made under [Ch. 34, Laws of 1979](#). The program was later replaced by a damage claims program that excluded sandhill cranes, similar to the modern WDACP.

<sup>41</sup> s. 29.889 (1) (e), Stats.

<sup>42</sup> Milwaukee, Kenosha, and Menominee Counties do not participate in WDACP.

<sup>43</sup> s. 20.370 (5) (fq), Stats.

<sup>44</sup> Though bonus deer harvest authorizations raised \$1.79 million in total in 2022-23, a portion of this revenue is made available exclusively for chronic wasting disease management and testing. [s. 20.370 (1) (hs) and (hx), Stats.]

<sup>45</sup> These other programs include urban wildlife abatement and control grants under s. 29.887, Stats., DNR activities relating to the removal of wild animals under s. 29.885, Stats., and for venison and wild turkey processing under the donation program established under s. 29.89, Stats.